

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

On page 2, paragraph [0010], amend as follows:

[0010] ~~Fig. 2 illustrates~~ Figs. 2A and 2B illustrate resistances detected by probes of the probe-based storage device depending upon whether or not the probes are engaged in a dent, in accordance with an embodiment.

On page 4, paragraph [0022], amend as follows:

[0022] ~~[[Fig. 2]] Fig. 2A and 2B schematically illustrates~~ illustrate how data detection is performed during a read operation. As depicted in ~~[[Fig. 2]] Fig. 2A~~, the tip 16A of a first probe 14A is engaged in a dent 22 formed in the electrically conductive layer 30. As a result, the signal path between the cantilever 18A of the probe 14A and the layer 30 has a first resistance R1. In response to a voltage applied on the cantilever 18A, a current I1 is induced through the resistance R1 into the electrically conductive layer 30. This current I1 is sensed by the current sensor 26A through the electrical wire 24A and the cantilever 18A.

On page 5, paragraph [0023], amend as follows:

[0023] A second probe 14B as shown in Fig. 2B has a tip 16B that is engaged on the storage surface 12 (but not in a dent). As a result, the signal path between the cantilever 18B of the probe 14B and the electrically conductive layer 30 has a second resistance R2 (where R2 is greater than R1). In response to a voltage applied to the cantilever 18B, a current I2 flows through the resistance R2, which is detected by the current sensor 26B through the electrical wire 24B and cantilever 18B. Because the resistance R2 is larger than the resistance R1, the current I2 detected by the probe 14B (which is not engaged in a dent) is lower than the current I1 detected by the probe 14A (which is engaged in a dent), provided that the same voltage is applied to cantilevers 18A and 18B

On page 5, paragraph [0024], amend as follows:

[0024] Fig. 3 is a cross-sectional view of the probe tip 16 being engaged in a dent 22 formed in the layer 30. In the implementation depicted, an electrical conductor 32 is provided below the layer 30. The electrical conductor 32 may be formed of a metal, doped silicon, polysilicon, or other electrically conductive material. The electrical conductor 32 is able to carry an electrical signal in response to an electrical signal applied at the probe 14. In one

embodiment, the electrical conductor 32 can be electrically connected to a ground or other reference potential. Multiple electrical conductors 32 can be connected to respective storage cells 20 (Fig. 1). For example, each electrical conductor 32 can be connected to a respective column of storage cells.